

Solfeggio Development and Teaching in China

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Abstract

Solfeggio is to cultivate the ability of listening and reading music through solfeggio practice and listening training, so as to master the correct intonation, rhythm and basic solfeggio ability of music score. Music works through a special distribution system of brain nerve modules that perform specific tasks. He gave examples to prove the complex interaction of the brain, that is, how to activate brain cells and functions by describing the internal process of children playing musical instruments. In other words, children can receive music education scientifically from an early age, which can not only stimulate their brain potential, but also improve their physical and mental coordination and social skills, and enhance their comprehensive literacy and performance ability. This article presented the development and teaching of solfeggio in China.

Keywords: Development; Teaching; Solfeggio; China

Introduction

Solfeggio development

Music is a very important part of every child's life, and it accompanies every child on the road of growth. Kodály Zoltán believes that "music should belong to everyone!" This is also the essence of his music education concept (Yang, 2011).

Professor Li Zhengdao, a Nobel Prize winner and physicist, famously said at the "Science and Art Seminar" held at the Yanhuang Art Museum in Beijing in 1993: "Science and art are two sides of the same coin, and no one can live without them." Music in Kodály's educational concept has gone beyond its own meaning: it has a positive impact on personality development and general academic performance, and music education is an effective means to make up for social disadvantages. In the psychological impact assessment of Kodály Methods, the results are as follows: Children who received music education according to Kodály Methods strengthened their creativity (fluency and originality of thinking, better and more flexible adaptation to tasks), the relationship between intelligence and creativity increased, and the correlation between social status and intelligence was weakened (that is, changed their social disadvantages) (Barkóczi, 1977). Einstein once said that the constant pursuit of truth, goodness and beauty in the fields of science and art has illuminated his life path, and his love for art has enriched and cultivated his perception, likeness and creativity.

Music works through a special distribution system of brain nerve modules that perform specific tasks. It can be seen that the modules are diversified, activated according to the requirements of the target and participate in various processes. He gave examples to prove the complex interaction of the brain, that is, how to activate brain cells and functions by

describing the internal process of children playing musical instruments. Specifically: 1. Sensory, perception: hearing, hearing, vision, touch and action exercise; 2. Cognition, symbolic transfer, music coding system is transformed into action, and music is played by understanding the score and making it sound; 3. Plan and implement long-term and lasting actions; 4. Exercise, muscle movement, some fine movements and muscle coordination of the whole body; 5. Emotion and motivation differentiation; 6. Learning process, learning music score; 7. Increase memory capacity through practice; 8. Reflect, criticize and think self-critically by evaluating your performance. Compared with ordinary students, art students have higher scores of personality traits, optimistic life and stronger control.

Bilhartz et. al. (2000) found that there is an important relationship between early childhood music education and the development of orienteering skills. The researchers studied the cognitive development of children who were taught according to the theme and structured music teaching plan. The students in the experimental group studied music regularly every week, while the control group did not take any music courses at all. Children attending special music education have made great progress in Bead Memory, which is a part of the Stanford-Binet. Alfred intelligence scale, which is used to check visual memory based on space. Students can also create their own folk music maps with the help of teachers, and even use interactive whiteboards for this purpose. J. A. Gilbert once did an experiment, which showed that children's pitch listening ability increased most rapidly during the period of 6-8, but it improved slowly after the age of 18. Edward Gordon, a music psychologist, thinks that the development of musical talent will reach a balance around the age of 9. Rosie MacDonald, a famous American music educator, pointed out in the article "Early Childhood Music Education" that after the age of 9, basic rhythm skills, such as keeping a steady beat, cannot be substantially changed and improved.

Suhomlinski thinks: "Music education is not the education of musicians, but the education of people first." Singing can be a relevant factor in the development of social skills, and it can maintain physical and mental health. Kodály believes: "Music is an indispensable part of people all over the world, and no one is complete without music knowledge. Therefore, it is obvious that music must be one of the subjects in the school. " "A music teacher in Xiaowadao is far more important than the director of Budapest Opera House. A dean can only fail once, and a teacher who teaches for 30 years will kill the love of music for 30 generations if he doesn't teach well "(Zhang, 2019).

To sum up, the art of music is inseparable from the development and growth of people's morality, wisdom, sports, aesthetics and labor. Human emotions can be presented through the art of music, and the art of reproduction can also edify people's understanding of emotions and the pursuit of truth. Music education in primary schools is an important link in the cognitive stage, and the professional knowledge of music teachers and the ability to control classroom appeal are more important. In order for children to pursue truth, goodness and beauty in the fields of science and art, teachers should use the light of their own professional knowledge to illuminate their life path and cultivate their expressive ability and innovative ability.

Solfeggio development in China

At the end of the Qing Dynasty, all walks of life ushered in the tide of studying abroad in order to strengthen the country. Many intellectuals returned from studying in Japan, Germany and other places and developed domestic education. At the end of the 19th century and the beginning of the 20th century, a "new school" emerged in China, and the contents of solfeggio entered the classroom-professional knowledge such as interval, scale, rhythm training, notation, and the first-tune method, which was widely used.

At the beginning of the 20th century, Zhejiang two-level teachers' colleges set up the specialized course of "Handicraft of Music and Pictures" at the same time, and for the first time joined the specialized course named "Solfeggio". At this point, solfeggio has become a formal professional course in school music education in China.

During the war, music education was closely related to patriotic education and national independence, which made solfeggio develop rapidly in communication. It was the inheritance of national music and the perfection of solfeggio. At that time, solfeggio, which was suitable for China's national conditions, gradually developed.

In modern times, Mr. Chen Hong, as the first teacher who introduced French solfeggio to China, made great contributions to the establishment of solfeggio education system in China in this period. Around 1960, the state proposed that art education should be "three-oriented", that is, "revolutionary, nationalized and popular", which played a great role in the China process of solfeggio.

Since the 21st century, due to the state's emphasis on music education and the introduction of relevant policies, solfeggio in China has developed rapidly and gradually entered the right track. At present, a large number of excellent solfeggio works and teaching materials have been published one after another at home and abroad, among which solfeggio concert enriches the form of subject teaching, improves students' enthusiasm for solfeggio learning, and promotes the development of solfeggio in China, which is in line with international standards (Yang, 2010).

After continuous improvement and innovation, people began to use and favor its educational and teaching functions. In the development process of solfeggio, there are certain differences among countries, which can be roughly divided into the following points:

1) notation

The earliest record in the history of western music is "concise notation", which evolved from Greek, the reflection of the ending sound of Gregorian chant, retrograde way and so on. Then, in *Dialogue with Music*, Oddo Joyi, a French theorist, composer and abbot of Clooney, defined the names of the sounds in the scale, which is the basis of the modern alphabet name system-Neum notation. Notation first appeared in church choirs. In order to enable believers to better understand, remember and spread songs, some symbols such as language stress and punctuation were added to the lyrics, so that people could better sing music scores and understand the trend of melody.

Newham notation, also known as digital notation or digital notation, is a notation system that uses numbers to represent notes and rhythms. Its advantage is that it is easy to remember and teach, and it is suitable for people who don't understand music theory to teach and play music. The notation method is to represent the 12 notes within 8 degrees with the

numbers 0~11 respectively, where 0 represents the pitch, 1 represents the rise of 1 degree, 2 represents the rise of 2 degrees, and so on. At the same time, numbers are used to indicate the duration of notes, such as 1 for a quarter note, "2 for a quarter note, and so on. For example, "1 2 3 4 5 4 3 2" is "do remi fa sol fa mi re". (Quote Baidu website, Newham notation)

Simple notation is also commonly called digital notation. The rudiment of digital notation first appeared in Europe in the 16th century, when a Catholic monk named Suetti wrote a musical notation song with Arabic numerals 1, 2, 3, 4, 5, 6 and 7 representing seven sounds. Rousseau, a great French thinker in the 18th century, read a paper "Proposal for New Musical Symbols" to the Academy of Sciences in Paris, France in 1742, and then mentioned this "digital notation" to form the notation principle. In the 19th century, after the continuous improvement and popularization of P. Garland (a math teacher), A. Paris (a lawyer) and E.J.M M. Chevy (a doctor), digital notation was widely used among the masses. Therefore, this notation is called "Galbraith-Palmer-Xie notation" in the west. Also known as "Xie Weipu".

The earliest records in China's music history are "the musical score of Lv and Gong Shang". China used the musical score of Lv and Gong Shang to record the music (elegant music) of the sacrificial banquet in the court more than one thousand years before the Western Zhou Dynasty. Character notation: Subtraction notation, Banquet and Half-character notation, Gong and Drum Classics and Ersi notation, etc.

Half-character notation of Yanle is one of the traditional folk notation systems in China, which is based on the phonemes and techniques of musical instruments and first appeared in the Thousand Buddha Cave in Dunhuang. "Yanle Banzi Spectrum" was basically finalized and widely used in the Ming and Qing Dynasties through the popular Chinese character spectrum and Gongchi spectrum in the Song Dynasty. Gongchi spectrum 合、四、一、上、尺、工、凡、六、五、乙 as a roll call, Equivalent to sol, la, si, do, re, mi, fa, sol, la, si, with the higher octave plus radicals "亻、如" 上、尺、亿、彪", Add a folding tail at the end of each word in the low octave (except the compound word). Such as "凡、工、上、彪", "六、五、乙" Singing in the eighth degree 四、合、一. The traditional writing format is from top to bottom and from right to left. Rhythm (eye board) symbol is marked on the right side of I-beam, strong beat (head board) symbol is ", "or ", and weak beat (eye, middle eye) symbol is ". ", the end of each sentence is indicated by a space.

At the end of 19th century and the beginning of 20th century, Shen Xingong, a music educator, introduced the notation teaching method. His School Singing Collection was published in 1904, which became the first notation song collection published in China and popular at that time. Since then, notation has gradually spread to schools all over the country. Because of its conciseness, easy learning and convenient typography, the notation played a great role in the spread of songs in the mass singing movement of China against Japanese aggression and national salvation that rose in 1930s.

2) roll call

The roll-call method can be divided into fixed roll-call method and initial roll-call method, which is a singing method that expresses the pitch of each tone in the musical system through several specific syllables.

Fixed roll-call method: fixed roll-call method means that the singing name is fixed, and the singing tone is not fixed and has changes. The seven basic levels of C, D, E, F, G, A and B on the staff and their changing levels are correspondingly sung as the roll-call method of Do, Re, Mi, Fa, Sol, La and Si. When DO is marked with a rising sign (#) or a falling sign (b), a re-rising sign (x) or a re-falling sign (bb) (including the temporary signs on the key signature), it is only necessary to sing DO in a high semitone, a low semitone, a high whole tone and a low whole tone (all according to the law of twelve averages), and the pronunciation is still DO. So do has five pitches, and so do the other six tones.

First tune roll-call method: the first tune roll-call method mainly uses the "mobile do" roll-call method. It is characterized by easy reading of music, strong singing of melody, few inflections, clear direction of harmony vocabulary, easy matching and tone shifting of accompaniment, low difficulty in memorizing music, easy performance of singing and so on. The first tuning letters are: d, r, m, f, s, l, t. The complete writing is Do, Re, Mi, Fa, Sol, La and ti. When there is a temporary inflection mark in the note, the pronunciation of the roll-call needs to be changed accordingly. The law of change (see spectral example 2-1) is that the vowel becomes I when the semitone is raised, and it becomes A when the semitone is lowered, for example, the rising Fa becomes Fi and the falling Ti becomes Ta.

Guido AreTiinus, a French theorist, used horizontal lines to indicate pitch and five lines to record rhythm and melody, which also laid the foundation for the development of line notation. Guido Ale Tiinus arranged the first note of each melody phrase in the hymn ode to St. John together to form a six-tone scale, which was named as the roll-call of melody sound, and later evolved into the "roll-call method of the first tune". The first tune roll-call method was obtained by moving the position of six tones, which was beneficial to the spread of church music at that time. Later, through the perfection of John Curwen (1816-1880), the "Colvin gesture" was formed, which is also one of the organizational parts of Kodály Zoltán teaching system. This gesture represents seven different roll names with seven different gestures and different high and low positions in front of the body, which reflects the high and low relationship of singing in space (Chinese compulsory education textbook. First grade music volume II). Kodaly gesture, as a visual aid, is vivid and interesting. The spatial position and movement direction expressed by gestures help children and junior students to distinguish the distance of pitch, which makes the abstract concept have a certain image significance (Liu, 2022).

The use of gestures has a relative height range:

do hands on the waist position, slightly clenched fist, palm down, the pronunciation is more rounded and stable.

Re hands on the lower ribs, palms down, slightly upward when pronouncing, and the pronunciation position is in front.

Mi puts his hand on the xiphoid, palms down, and his tongue feels flat.

Fa hands on the chest, thumbs down, only half a tone away from mi, prompting students to move closer to mi and sound towards the pitch of mi.

Sol hand is placed flat on the collar, and it feels stable and rising when making sound.

La puts her hand in front of her nose, palms down and fingers down, prompting students to keep the mouth shape of A.

Ti On the basis of la, the Ti gesture slightly raises five fingers and makes slight changes.

Do hands over your head, palms down, hands slightly held and flat.

Hungarian teaching adopts the rhythm name system of French Imirie-Joseph Cheever, and rhythm syllables are often marked with Fu Tou and without Fu Tou. The common ways of reading and marking notes are: quarter note: ta; Octave note: titi; Dichoton: ta-a; Sixteenth note: lililili; Full note: ta-a-a-a; Syntactic rhythm: titati or sin-co-pa; Additional rhythm: ta-me-ti, ti-ta-me; Four-point rest: suna; Eight-point rest: si.

Orff's teaching system pays attention to the role of rhythm in music learning. Solfeggio teaching is based on the concept of "game solfeggio", which pursues the synchronization of auditory experience and sound expression. Generally speaking, improvisational solfeggio or singing under the prescribed tonality and rhythm is adopted.

Gongchi notation is the most widely used roll-call notation in China. There are two kinds of roll-call notation: "fixed roll-call notation" and "first tune roll-call notation". The board (strong beat) eye (weak beat) symbols for recording rhythm are also developed more perfectly. Key signature is marked with the names of Zhenggong Tune and Xiaogong Tune. After the Song and Yuan Dynasties, the most popular music handed down in China was instrumental music and opera singing. Gongchi notation still has positive and special significance in studying and sorting out the heritage of national music and learning from folk music. Until today, many old artists are still used to using Gongchi notation to record music or sing.

To sum up, The composition and development of notation, roll-call and rhythm reading are all aimed at enabling scholars to better master the potential skills of musical emotional expression, inheritance and development. With the continuous improvement of the music system, staff and digital music are the most widely used at present. In the aspect of modal roll-call, fixed modal roll-call and first modal roll-call have been formed. The first tune roll-call method is similar to the digital spectrum roll-call. By moving DO, the difficulty of reading music is reduced, which is helpful for junior students to learn and improve their ability to distinguish sounds.

3) Teaching concept

Medieval music mainly focused on religious themes and basically served the church. Their teaching concept is very simple, and they mainly improvise. Music works are basically spread among believers, and they can better sing hymns.

4) Teaching methods

In the Middle Ages, Guido had its own unique teaching method when training the children in the choir, that is, the famous "Guido Hands" solfeggio teaching method, which corresponded each sound in the range to each joint of the left finger, and the students sang according to the teacher's instructions. Students only need to remember the joint position of their left hand, and they can correspond to all the sounds. Guido's solfeggio teaching method is the earliest music teaching method that uses body language in the history of solfeggio. In practice, he concludes that students can learn more music or master the rhythm of music faster by using this specific body language. After the perfection of John Curwen (1816-1880), the "Curwen gesture" was formed. Later, Kodály Zoltán put "Kelvin gesture" into Kodály teaching system and it was widely used. Kodály Zoltán's idea follows the pattern of ancient Greece, with

its music itself and education formed in the process of actively playing music as its core theme. Children's musical skills should be cultivated and trained from childhood and further improved. The basis of this method is folk music, and its means is the relative roll-call method to facilitate reading music scores (Yin, 1999).

To sum up, throughout the development history of western and China music, the development of western music originated from the church and constantly improved the music system through communication. Through practice, the visualization, visualization, reading and writing of music professional knowledge can intensify learners' memory potential and better inherit and develop the music teaching system.

China's music originated from folk labor, developed in drama, and was mainly oral and receptive, which required the communicators to have certain musical talent and literacy. The appearance of digital spectrum has provided great help for the development and inheritance of music and music education in China.

Conclusion

In conclusion, the study of Solfeggio development and teaching in China has revealed a multifaceted landscape that is both rich in historical tradition and evolving in response to contemporary educational and cultural trends. Through an exploration of the historical context, pedagogical approaches, and current practices, it becomes evident that Solfeggio holds a unique position within the Chinese music education system. The historical journey of Solfeggio in China highlights its enduring appeal and adaptability. From its introduction during the early 20th century to its integration into modern music curricula, Solfeggio has remained a fundamental component of music education in China. Its evolution reflects the nation's openness to international influences and its ability to incorporate them into its own cultural fabric. The pedagogical approaches to Solfeggio teaching in China exhibit a blend of traditional methods and innovative strategies. Teachers are increasingly incorporating technology, interactive learning tools, and cross-disciplinary approaches to enhance students' musical literacy. This dynamic shift aligns with global trends in music education, emphasizing the importance of a well-rounded musical education.

Current practices in Solfeggio education in China illustrate the diversity of the country's music education system. While the traditional rote learning method remains prevalent, there is a growing emphasis on fostering creativity, critical thinking, and individual expression. This is indicative of a broader shift in Chinese education towards holistic development and the cultivation of well-rounded individuals. As Solfeggio continues to evolve and adapt in the Chinese context, it is essential to acknowledge the challenges and opportunities it presents. Educators, policymakers, and scholars must collaborate to strike a balance between preserving its rich historical heritage and embracing innovative pedagogical approaches. Moreover, efforts should be made to further integrate Solfeggio into the broader music education framework and promote its accessibility to a wider range of students. Solfeggio development and teaching in China offer a fascinating case study of music education in a rapidly changing cultural and educational landscape. By understanding and appreciating the historical legacy, current practices, and potential for innovation, we can contribute to the continued growth and enrichment of Solfeggio education in China and beyond. This research invites further exploration and collaboration between scholars,

educators, and policymakers to ensure the enduring relevance and vitality of Solfeggio in the 21st century.

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